NAVSUP

NAVAL SUPPLY SYSTEMS COMMAND

Executive Overview
EX-201

Ready. Resourceful. Responsive!

Agenda

◇ **Course Mission Statement**

◇ **ERP Overview**

◇ **Major Terms & Concepts**

◇ **SMART Integrated Scenarios**

◇ **SAP Repair Cycle**

   Demonstration

To provide the tools to understand ERP and its impacts to the Navy and to demonstrate a real-world scenario of the Navy's use of ERP. In other words:

"To know the right questions to ask and to understand the answers given."

ERP Overview

◇ **Why ERP?**

◇ **What's our approach?**

◇ **What investment is required?**

◇ **What will it buy the Navy?**

Why ERP?

◇ **ERP is <u>NOT</u> about IT or software!**

◇ **ERP is about how business is done**

  ◇ *Reengineer business processes*

  ◇ *Establish common data and practices*

  ◇ *Establish Single Entry – Single Source*

  ◇ *Reduce number of applications*

  ◇ *Establish End-to-End process connectivity*

  ◇ *Comply with Federal financial standards*

  ◇ *Enable effective implementation of Activity Based Costing (ABC)*

NAVAL SUPPLY SYSTEMS COMMAND HEADQUARTERS

- ◇ **Provides backbone to leverage best commercial business practices**
- ◇ **Replaces legacy systems requiring upgrades**
- ◇ **Capitalizes on Navy, Other Services, and DOD Investments**
- ◇ **Provides the means to achieve common ashore / afloat processes**
- ◇ **Enhances speed and accuracy in decision making**
- ◇ **Enables *e*Business extensions**

Disparate databases

Suspect data integrity

Financial, maintenance, and supply data not linked

Multiple sources of data means multiple answers   to a single question

Result … months to answer a question and conflicting answers

From FHP CEB III
16 November 2000

AVDLR Cost Growth…Why so hard to answer?
Disparate data bases, suspect data integrity, insufficient granularity

Symptom	Cause	Data Sources
INCREASED CONSUMPTION	Aging components?	AV3M/ICP/AIR 4.0/NADEPs
	Declining component reliability?	AV3M/ICP/AIR 4.0/NADEPs
	Bulletins?	Program Mgr/ICP/TYCOMs
	O & I level skill & manning?	AMSR Top Level Metrics/TYCOMs
	Parts availability?	DLA/ICP/TYCOMs/O&I Level
	ILS disconnects?	Program Mgr/TYCOMs/ICP
	PRE/PRL shortfalls?	AIR3.0/Program Mgr/TYCOMS
	FHP execution?	TYCOMS/NAVCOMPT/ICP
	Maint. philosophy change?	Program Mgr/ICP
	Depth of repair increase?	AIR 6.0 NADEPS/Com'l contractor
	Matl usage/cost growth?	NADEPs/Com'l contractor/ICP
	New product mix?	Program Mgr/TYCOMs/ICP
INCREASED COST	Obsolescence?	AIR4.0/NADEPs/ICP/DLA
	Overhead fluctuation?	ICP/DLA/NADEP
	FHP execution?	TYCOMS/NAVCOMPT/ICP

Financial, Maintenance and Supply Data…NO LINK

Joint Vision 2020

Revolution in Business Affairs

Give priority investments that will cut our operating or business costs, such as Enterprise Resource Planning (ERP) and the Navy-Marine Corps Intranet (NMCI).

Commercial Best Practices ESG

- **DLA Business System Modernization**
- **Army Material Command Logistics Modernization**
- **Military Sealift Command**

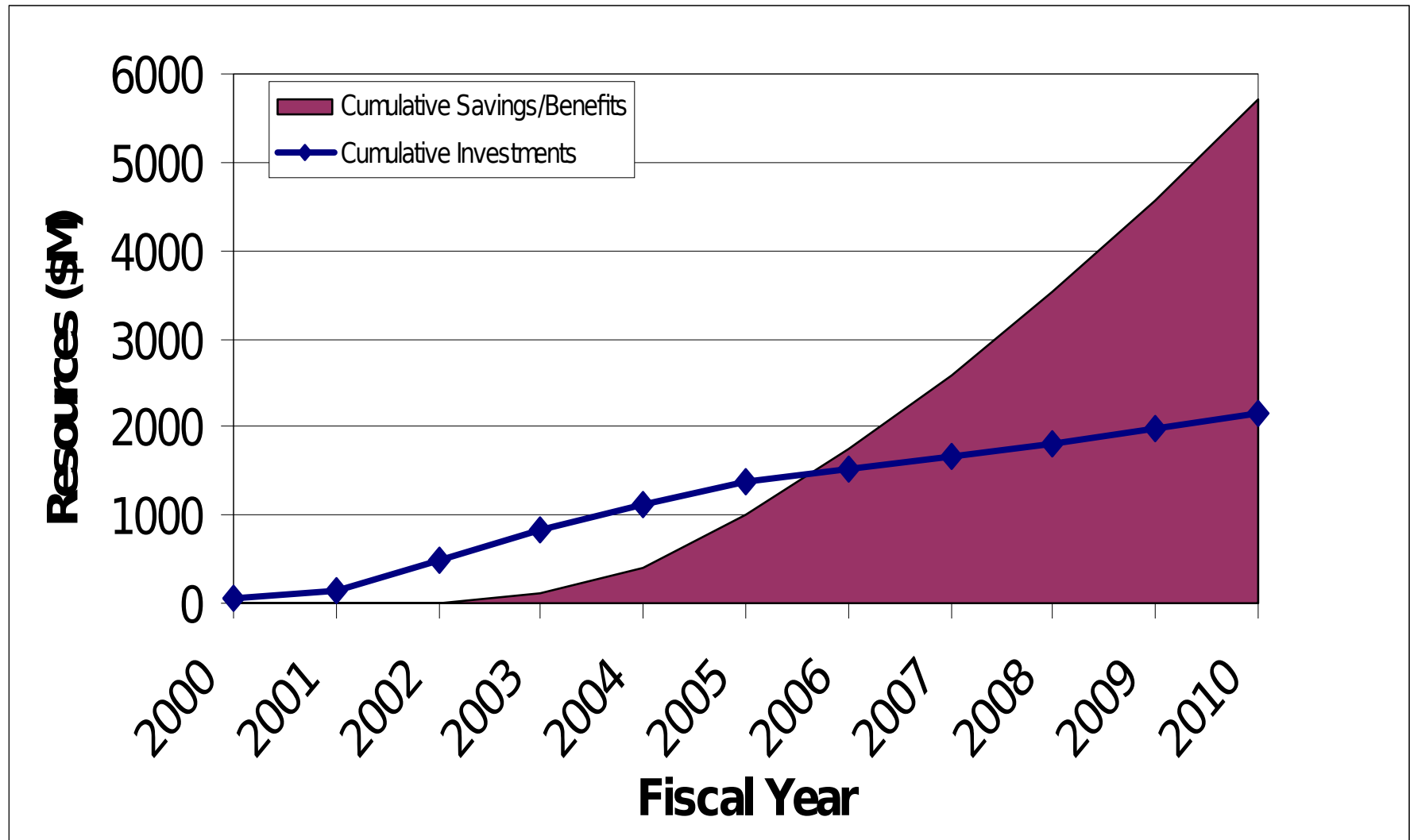| Aviation Supply/ Maintenance (SUP/AIR)	Program Management (AIR)	Regional Maintenance (SEA/CLF)	Navy Working Capital Fund (SPAWAR)

◇ **The ERP programs drive efficiencies and data visibility at the individual business level**

◇ **Common functions (finance, maintenance, contracting, & supply) guarantee ability to roll-up data across Navy Enterprise**

◇ **ERP data is the means to provide useful metrics at the highest levels in real time based on reliable integrated data at the business unit level**
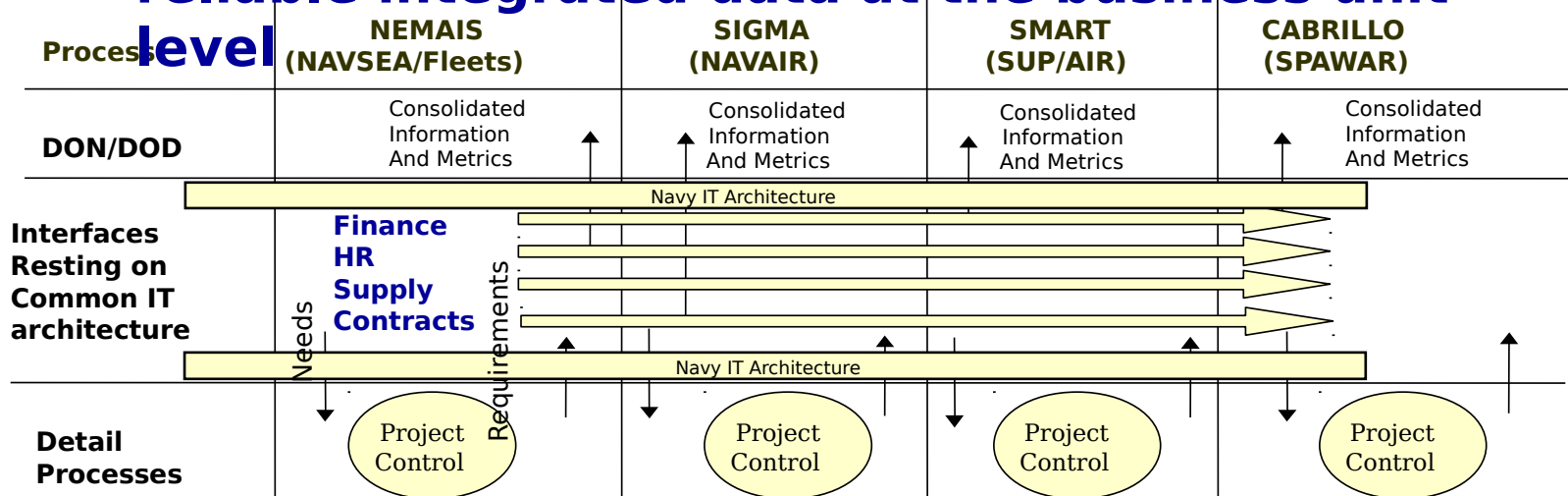
Process	NEMAIS (NAVSEA/Fleets)	SIGMA (NAVAIR)	SMART (SUP/AIR)	CABRILLO (SPAWAR)
DON/DOD	Consolidated Information And Metrics	Consolidated Information And Metrics	Consolidated Information And Metrics	Consolidated Information And Metrics
Interfaces Resting on Common IT architecture	Navy IT Architecture — **Finance HR Supply Contracts** — Needs / Requirements — Navy IT Architecture			
Detail Processes	Project Control	Project Control	Project Control	Project Control

1

More product per dollar for the Fleet

SPAWAR FINANCIALS
IMPLEMENTED
JULY 2, 2001

Prior to ERP:

- 59 Internal systems
- 44 Internal Interfaces
- >20 separate databases
- O&M costs $8.5M
- Batch accounting (High latency 1-3 weeks delay)
- Poor management reporting
- >80 Manual on-line Financial transactions (labor intensive)
- Multiple data inputs resulting in keypunch errors
- No ability to capture business or program costs

Under ERP:

- 75% reduction in IT applications and support
- O&M savings of $4.8M
- Reduction of 15.2 work years
- Real time accounting
- Tailored Mgt. reporting
- Automated financial transactions/ paperless work flow
- Data entered once
- Ability to capture costs (WBS, ABC/M, TOC, etc.)
- 2-3X speed increase in supply / financial processes

Fleet Readiness (Aircraft Grounding Bulletin)

NAVSUP

NAVAL SUPPLY SYSTEMS COMMAND HEADQUARTERS

SITSUM: An F-14 tail hook from production lot 6453 fails prema[turely] ... NAVAIR recommends REDSTRIPE ... Ground all aircraft for insp[ection]

Currently:

- NAVAIR releases grounding bulletin to entire fleet
- Requires inspection of every tail hook
- For 123 F-14s, remove, inspect and return to aircraft or BCM
- Inspect all tail hook inventories afloat and ashore, maintenance and supply
- All tail hooks are sent over time to NADEP for inspection
- Tail hooks are scheduled into NADEP as they are received
- Result, 123 F-14s grounded until inspection complete

Under ERP:

- NAVAIR queries the enterprise database ... locates all lot 6453 assets
- NAVAIR releases grounding bulletins real-time for 6 aircraft by tail number
- Uninstalled equipment records are red flagged in the enterprise database by serial number
- E-mails sent to selected supply & maintenance personnel afloat & ashore
- Affected tail hooks are "advance scheduled" for inspection at the NADEP
- Result, 6 F-14s grounded until inspection complete

NAVAL SUPPLY SYSTEMS COMMAND HEADQUARTERS

- ◇ **Ability to make decisions with more speed and accuracy**

- ◇ **Ability to streamline and integrate Navy core business functions and processes**

- ◇ **Ability to Align DoN claimants to better support Navy goals using common processes and data**

- ◇ **Ability to more effectively tie Maintenance and Support Budgets to Fleet metrics**

- ◇ **Ability to provide insight into Program Execution for plan costs and total ownership costs using ABC/M, EVM, TOC**

Major Terms & Concepts

Consistent and common data elements stored in tables that are necessary to process transactions across all modules of SAP.

◇ **Vendor Master Record = Information about suppliers: address, CAGE. Data from the Central Contractor Registration [CCR]**

◇ **Material Master Record = Selected Item Record Info from weapons system file [NIIN, CAGE, Part Number]**

◇ **Equipment Master Record = Selected Item Record Info by Serial Number**

◇ **Customer Master Record = UIC [Address, Payment and Order data]**

◇ **Company Code = Legal entity based on fund type [NAVSUP Working Capital Supply Management (3200)]**

◇ **Plant = Organization Code = Physical area where inventory is held or processed [AIMD in NALCOMIS is A9B = DH01 in SAP]**

◇ **Cost Center = Component of Cost Code Structure [7PP1000FAPRA] *Not a Direct Mapping* - Used in ABC/M to collect and assign expenses**

◇ **Storage Location = Purpose Code [A,W,L and building # for physical location]**

◇ **Functional Area = Weapons System [E2C2] or area within weapons system [E2C2 Landing Gear]**

◇ **Sales Organization = Company Code [NAVSUP Working Capital (3200)]**

◇ **Division = Organizational Code [Aviation Repairable, Aviation Consumable, Maritime Repairable, Maritime Consumable, Non-Navy Consumable]**

◇ **Functional Location = No current Navy Equivalent. For pilot, mapped to actual location of work center where equipment is installed [RADCOM Test Bench]**

◇ **Purchasing Organization = Navy Activity [NAVICP-PHIL/MECH]**

◇ **Purchase Groups = Contract Specialists [grouped by IWST]**
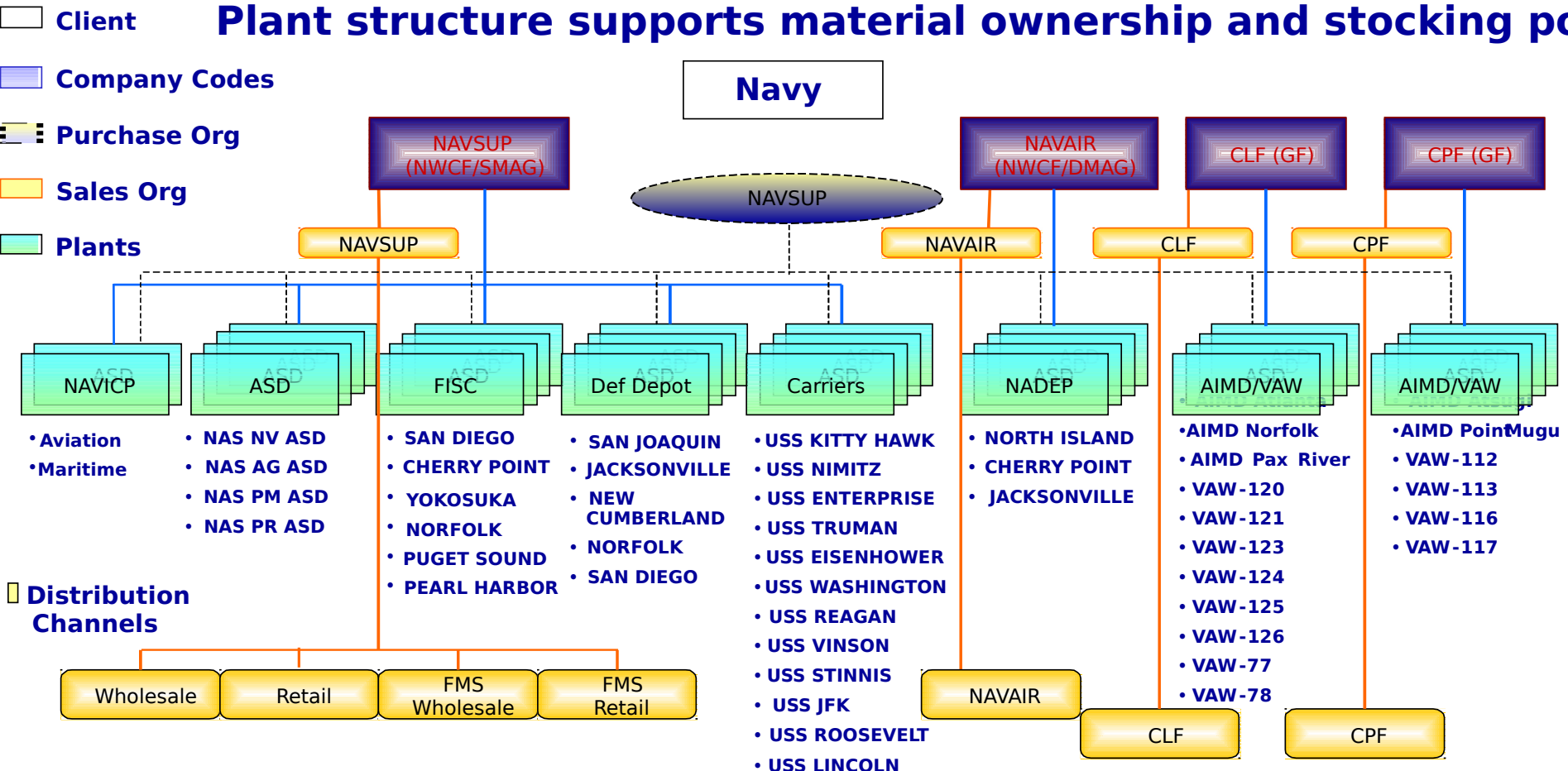
◇ **Maintenance Order = Maintenance Action Form [MAF]**

SMART SAP Business Architecture

NAVAL SUPPLY SYSTEMS COMMAND HEADQUARTERS

Financial hierarchy is consistent with FMO standards
Plant structure supports material ownership and stocking poi

Legend:
- Client
- Company Codes
- Purchase Org
- Sales Org
- Plants
- Distribution Channels

Navy

NAVSUP (NWCF/SMAG) — NAVSUP

NAVSUP

NAVAIR (NWCF/DMAG) — NAVAIR

CLF (GF) — CLF

CPF (GF) — CPF

NAVICP
- Aviation
- Maritime

ASD
- NAS NV ASD
- NAS AG ASD
- NAS PM ASD
- NAS PR ASD

FISC
- SAN DIEGO
- CHERRY POINT
- YOKOSUKA
- NORFOLK
- PUGET SOUND
- PEARL HARBOR

Def Depot
- SAN JOAQUIN
- JACKSONVILLE
- NEW CUMBERLAND
- NORFOLK
- SAN DIEGO

Carriers
- USS KITTY HAWK
- USS NIMITZ
- USS ENTERPRISE
- USS TRUMAN
- USS EISENHOWER
- USS WASHINGTON
- USS REAGAN
- USS VINSON
- USS STINNIS
- USS JFK
- USS ROOSEVELT
- USS LINCOLN

NADEP
- NORTH ISLAND
- CHERRY POINT
- JACKSONVILLE

AIMD/VAW
- AIMD Norfolk
- AIMD Pax River
- VAW-120
- VAW-121
- VAW-123
- VAW-124
- VAW-125
- VAW-126
- VAW-77
- VAW-78

AIMD/VAW
- AIMD Point Mugu
- VAW-112
- VAW-113
- VAW-116
- VAW-117

Distribution Channels:
- Wholesale
- Retail
- FMS Wholesale
- FMS Retail

NAVAIR

CLF

CPF

- Vendor stock category – C& O repair (Ex Lockheed and Northrop Grummon)
- Chartered outsourced warehouse – stock NWCF materials; Mini stock point and PBLs (ex. FEDEX)

2

SMART
Integrated Scenarios

Start here

Call out boxes:
- Time phased Plan vs. Order point
- Improved budget forecasting
- Constrained by budget or unconstrained
- Based on trend and other advanced models
- Plan Execution in SAP ERP
- Iterative simulation supported
- Decision based on constraints of capacity and budget
- Capability to perform logistic positioning

Process flow boxes (top row): Budget Planning → Funding Check → Alerts to Item Manager

Process flow boxes (middle row): Demand Mgt. → Demand Forecasting → Planned Replenishments → Execute Plan → Perform Availability And Substitutions → Buy or Repair Decision → Determine Source → Execute Fulfillment

Process flow boxes (bottom row): Purchase To Pay, Repair Plan Schedules, Recovery, Purchase To Pay, Perform Repairs

Lower call outs:
- SAP records Demand and Passes to APS forecasting
- Ability to simulate iterative decision support

Legend:
- Requisition processing
- Fulfillment
- Constrained Planning
- Repair Cycle
- Call outs indicate improvement areas

SAP fully integrated ERP on line transaction processing and execution with Manugistics advanced planning system (APS)
- ◇ **Supports the wholesale planning activities of the NAVICP**
    - ◇ *1500 E2C and LM-2500 unique NIINs*
- ◇ **Supports the planning of consumables at FISC North Island and RSO Norfolk**
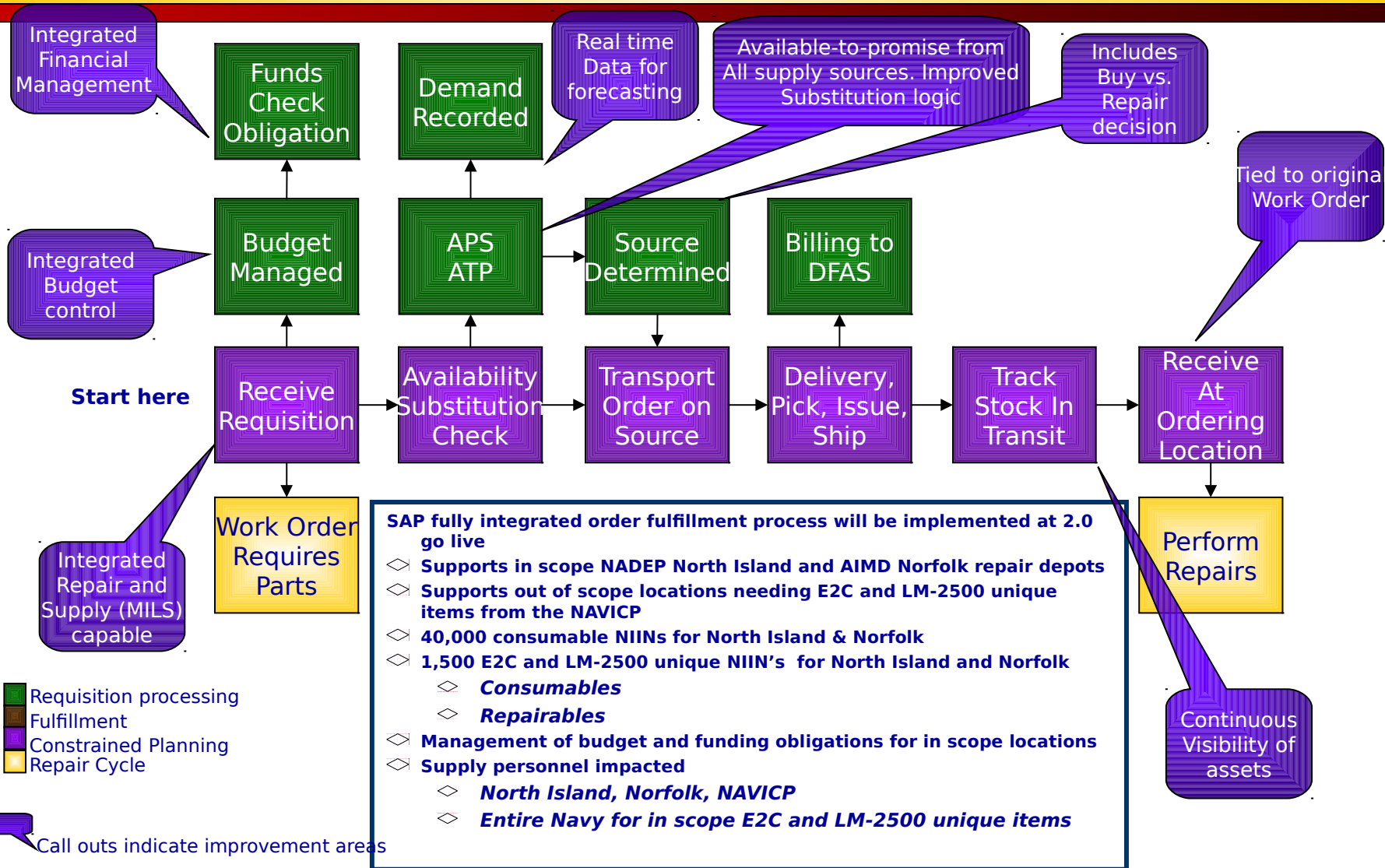   - ◇ *40,000 NIINs*
    - ◇ *Supports the RSO planning of local repairable at Norfolk and North Island*
- ◇ **Major improvement in the ability to perform budget constrained planning and to manage logistics execution based on budget constraints. (Set the plan and execute to it)**

SMART Order Fulfillment

Integrated Financial Management

Integrated Budget control

Integrated Repair and Supply (MILS) capable

Real time Data for forecasting

Available-to-promise from All supply sources. Improved Substitution logic

Includes Buy vs. Repair decision

Tied to original Work Order

Funds Check Obligation

Demand Recorded

Budget Managed → **APS ATP** → **Source Determined** → **Billing to DFAS**

Start here

Receive Requisition → **Availability Substitution Check** → **Transport Order on Source** → **Delivery, Pick, Issue, Ship** → **Track Stock In Transit** → **Receive At Ordering Location**

Work Order Requires Parts

Perform Repairs

Continuous Visibility of assets

SAP fully integrated order fulfillment process will be implemented at 2.0 go live
- Supports in scope NADEP North Island and AIMD Norfolk repair depots
- Supports out of scope locations needing E2C and LM-2500 unique items from the NAVICP
- 40,000 consumable NIINs for North Island & Norfolk
- 1,500 E2C and LM-2500 unique NIIN's for North Island and Norfolk
  - *Consumables*
  - *Repairables*
- Management of budget and funding obligations for in scope locations
- Supply personnel impacted
  - *North Island, Norfolk, NAVICP*
  - *Entire Navy for in scope E2C and LM-2500 unique items*

Requisition processing
Fulfillment
Constrained Planning
Repair Cycle

Call outs indicate improvement areas

Integration with Legacy budget system
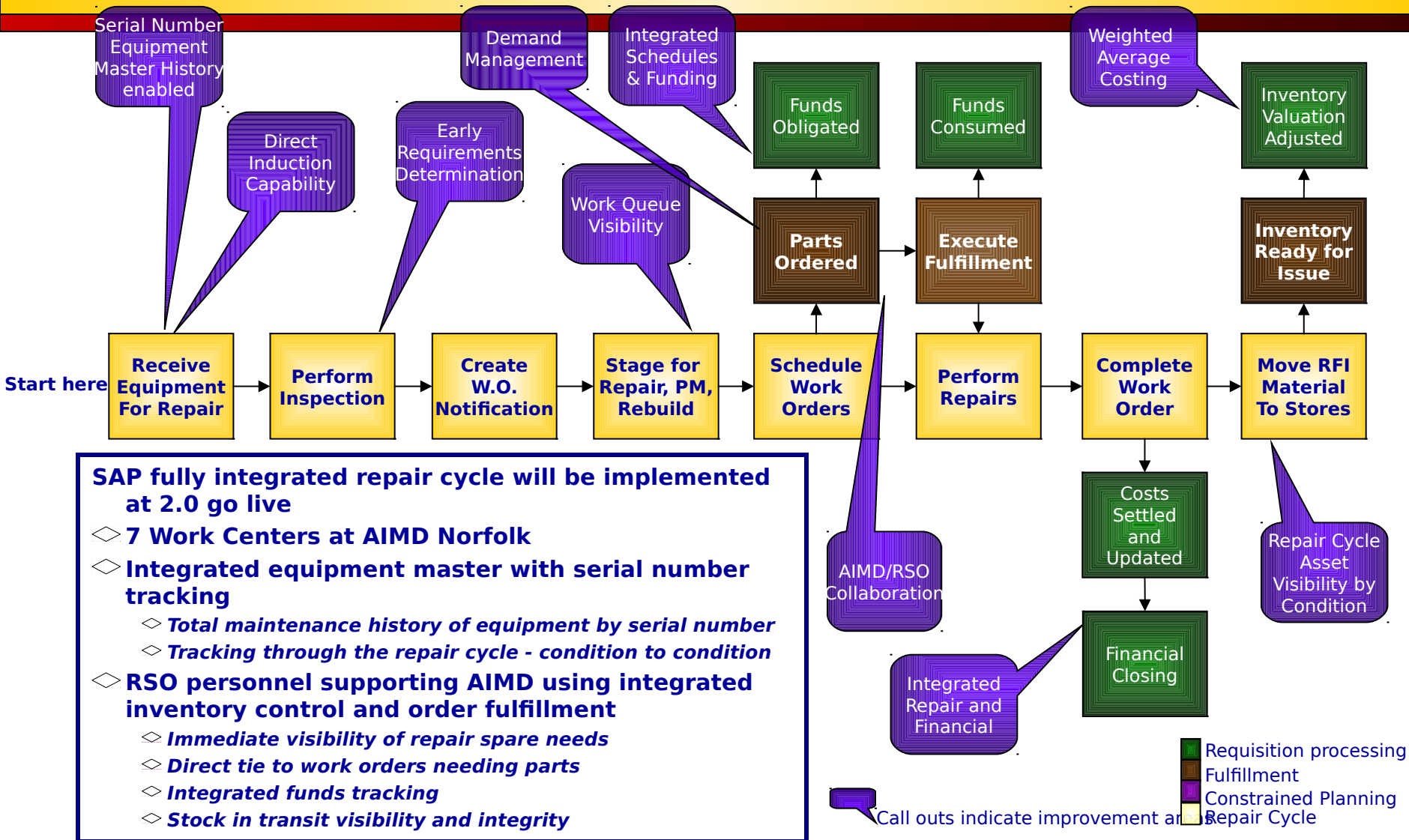
Replaceable With SAP Budget Mgt.

Collaborate Time Phased Needs With Vendor

Best Practice Cycle Counting

Visibility by Location, Purpose, Condition

Contract

Source list Quota Arrangement

ASN Visibility

Three-Way Matching

PX02/04 Budget Check

Delivery schedule

Manage Inventory

Integrated with DFAS

Start here

Purchase Requisition → **Source Determined** → **Create Purchase Release Order** → **Vendor Ships** → **Receive** → **Invoice Verification** → **Pay Bills**

MILS/EDI Capable

APS Buy Decision

Execute Fulfillment

Cost Updated

Moving Average Cost

APS Repair vs. Buy Logic

Record Vendor Performance

SAP fully integrated Procure to Pay process will be implemented in 2.0
◇ Supports in scope FISC North Island and RSO Norfolk ordering from local vendors and DLA
◇ Supports NAVICP ordering of in scope item repairs and consumables from DLA, commercial repair vendors, and organic repair depots
◇ 40,000 consumable NIINs for North Island & Norfolk
◇ 1,500 E2C and LM-2500 unique NIIN's for North Island and Norfolk
  ◇ *Consumables*
  ◇ *Repairables*

Legend:
- Requisition processing
- Fulfillment
- Constrained Planning
- Repair Cycle

Call outs indicate improvement area

SAP Repair Cycle Demonstration

Repair Cycle addresses the repair of a component at the AIMD level. Checks will be performed for funds availability, material availability, interchangeability, and source selection before an order is created to issue a RFI part and move the COND F part to the repair location.

At the repair location, a work order is created, the COND F part is repaired and transferred back to supply as RFI. Financial reports are generated to show repair costs and billing status for this repair.

Summary
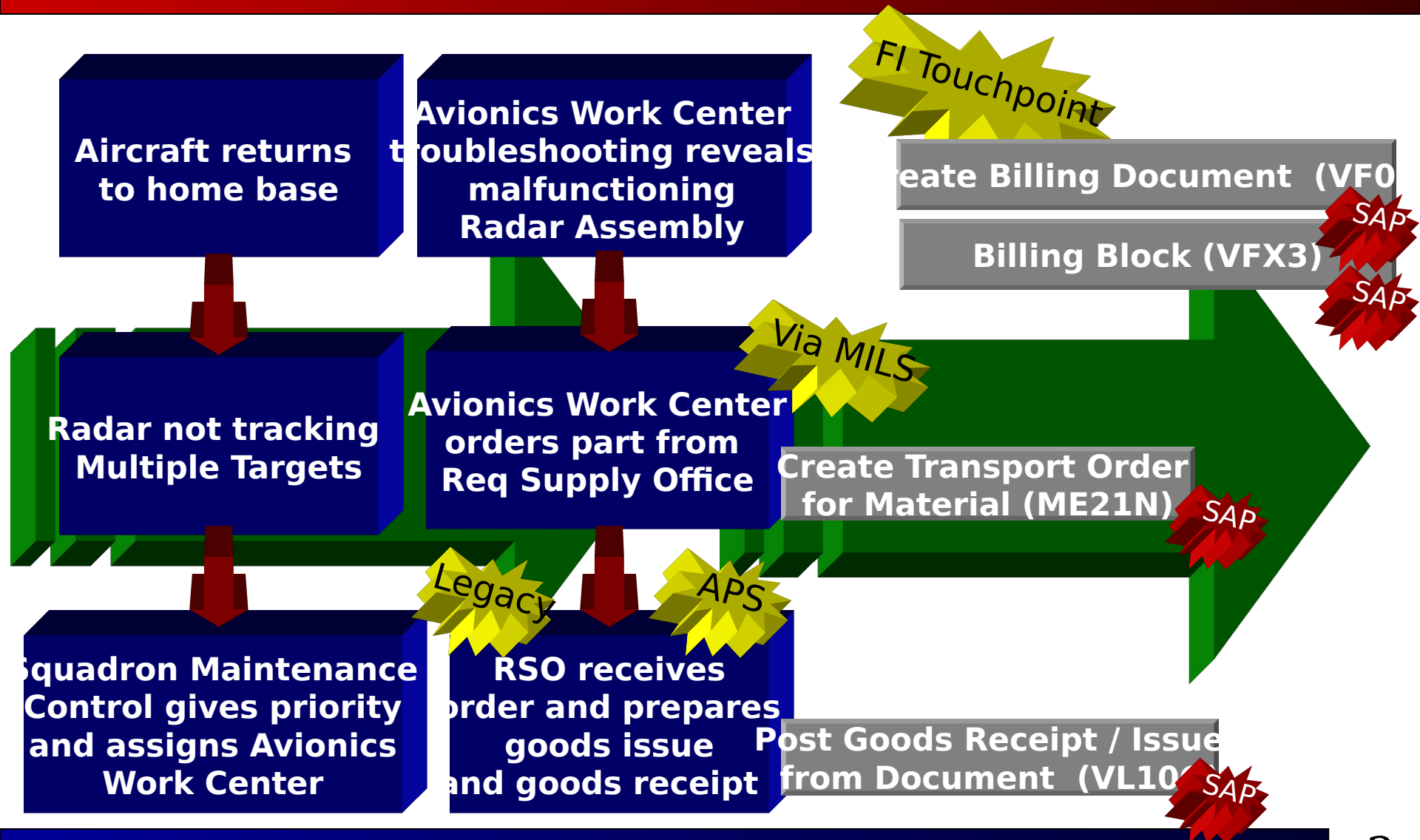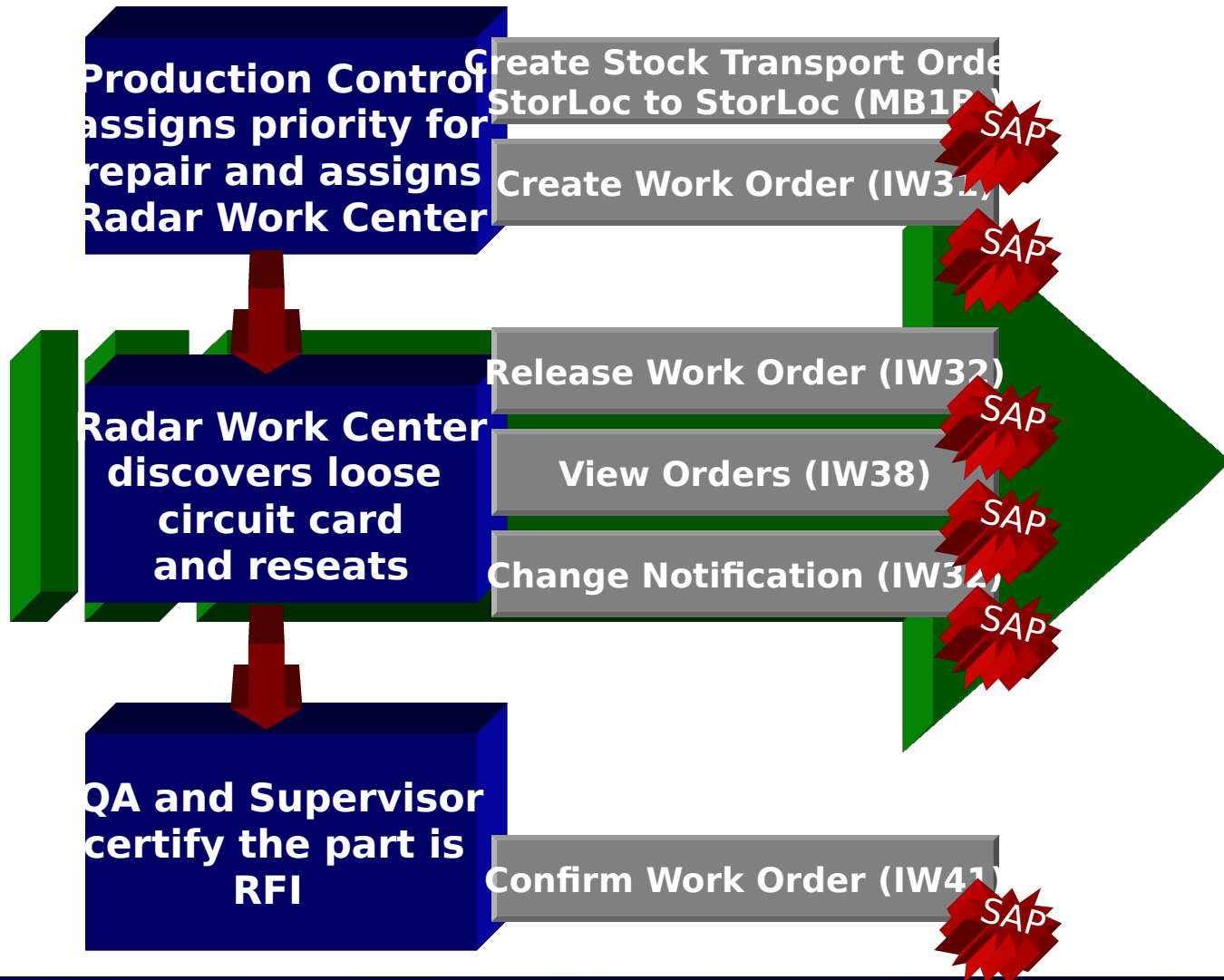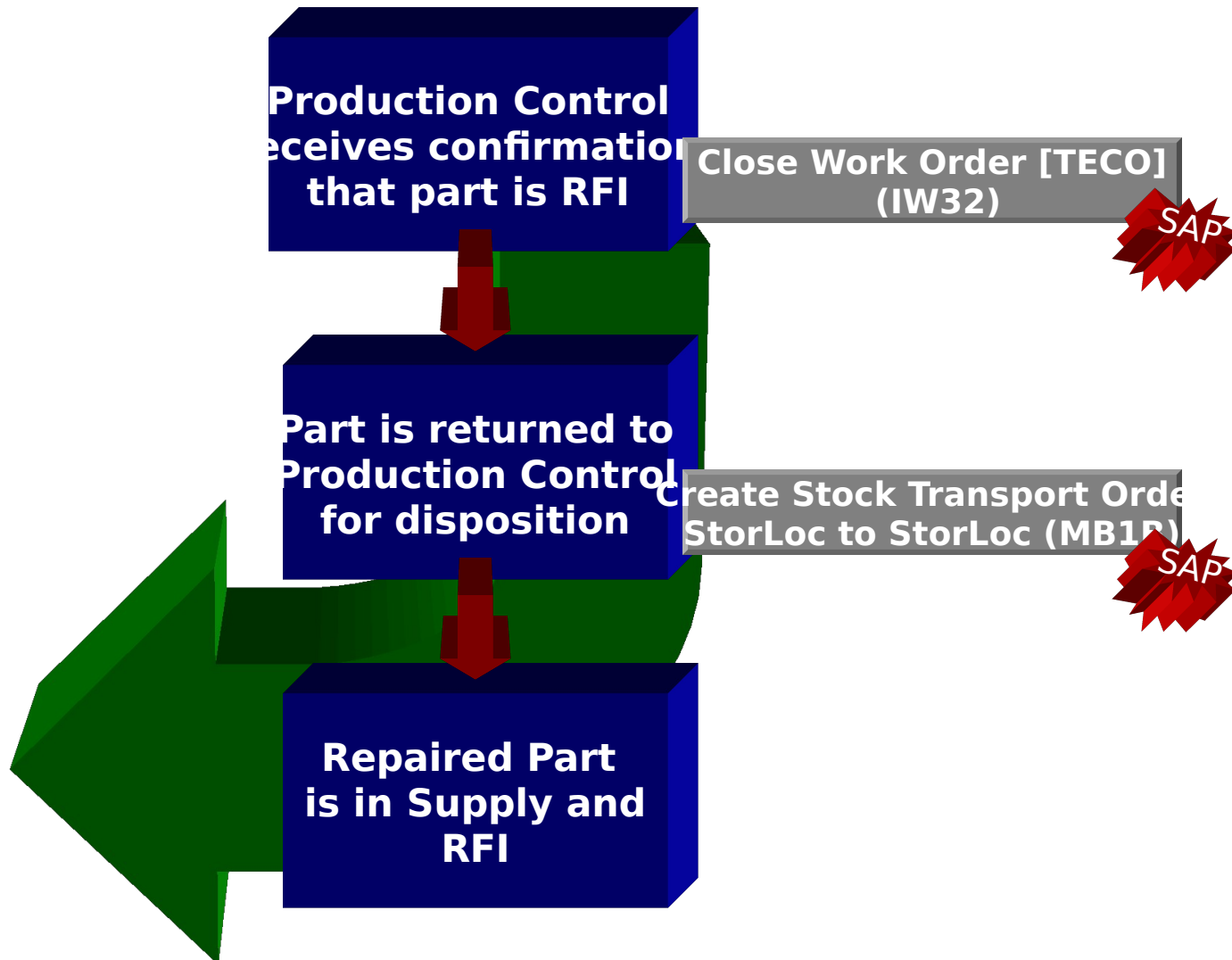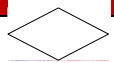
- **ERP Overview**
  - *Reengineer business processes*
  - *Establish common data and practices*
  - *Establish Single Entry – Single Source*
  - *Reduce number of applications*
  - *Establish End-to-End process connectivity*
  - *Comply with Federal financial standards*
  - *Enable effective implementation of Activity Based Costing (ABC)*
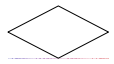
- **Major Terms & Concepts**
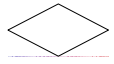
- **SMART Integrated Scenarios**
  - *Constrained Planning*
  - *Order Fulfillment*
  - *Procure to Pay*
  - *Repair Cycle*

- **SAP Repair Cycle Demonstration**

Final Questions?